

Application No. 09/994,088
Amendment dated November 26, 2007
Response to Office Action mailed May 25, 2007

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-59. (Cancelled).

60. (New) An apparatus for tensioning and clamping an elongate member, the apparatus comprising:

a housing having a longitudinal axis and a throughbore extending longitudinally therethrough for receiving the elongate member therethrough;

a clamping member movably mounted to the housing for being shifted in a direction generally normal to the housing longitudinal axis;

a cam lever that cooperates with the clamping member and having a release position with the clamping member spaced from the elongate member and a clamp position with the clamping member engaged with the elongate member in the housing throughbore;

an undulating surface of at least one of the housing and the clamping member having surface portions that extend transversely to the housing longitudinal axis and which engage the elongate member with the cam lever shifted to the clamp position so that the clamped elongate member has a substantially matching undulating configuration in engagement therewith; and

a tensioning tool coupled to the housing for receiving the elongate member therein and applying tension thereto along the housing longitudinal axis, so that with the cam lever in the clamp position, the tension in the elongate member will be in a direction transverse to the undulating surface portions to permit normal clamping forces that are generated by shifting the clamping member normal to the housing longitudinal axis to be reduced when the cam

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lever is shifted from the release position to the clamp position for clamping the elongate member in the housing throughbore.

61. (New) The apparatus of claim 60 wherein both of the housing and the clamping member have an undulating surface that are complimentary to each other.

62. (New) The apparatus of claim 60 wherein at least one of the housing, the clamping member, and the cam lever includes a lobe-shaped cam surface or a multifaceted cam surface at a cam interface between the housing and one of the clamping member and the cam lever to allow varying diameter elongate members to be clamped in the housing throughbore.

63. (New) The apparatus of claim 60 wherein the clamping member is a saddle member having a generally U-shaped body portion including a pair of legs, wherein the cam lever fits between the legs of the U-shaped saddle body to be pivotally connected thereto.

64. (New) The apparatus of claim 63 wherein the U-shaped saddle body has a lower base portion interconnecting the legs and having the undulating surface formed thereon so that pivoting the cam lever shifts the saddle member undulating surface into clamping engagement with the elongate member extending through the housing throughbore.

65. (New) The apparatus of claim 60 wherein the clamping member is a platen adjacent the housing throughbore and biased into engagement with the cam lever in the release position to keep the platen from interfering with insertion of the elongate member through the throughbore.

66. (New) The apparatus of claim 60 wherein the clamping member comprises a pair of clamping members that are shifted toward each other in a direction normal to the housing longitudinal axis to clamp the elongate member in the housing throughbore.

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67. (New) The apparatus of claim 66 wherein the pair of clamping members comprises a U-shaped saddle member and a platen.

68. (New) The apparatus of claim 60 further comprising an arcuate cable guide assembly having an arcuate bore and coupled to a front end of the housing so that the arcuate bore and housing throughbore are aligned at the coupling therebetween for receiving the elongate member through the arcuate bore and the housing throughbore to keep the elongate member from abruptly bending as the elongate member exits the housing throughbore at the housing front end.

69. (New) The apparatus of claim 60 wherein the clamping member includes a slot opening, and the cam lever is pivotally mounted to the clamping member in the slot opening with the slot opening being sized to allow the cam lever to be selectively adjusted between at least a first pivotal position and a second pivotal position spaced apart from each other in the slot opening so that different diameters of elongate members can be clamped in the housing throughbore depending on the selected first or second pivotal position of the cam lever.

70. (New) An apparatus for clamping an elongate member, the apparatus comprising:

a housing having an elongated throughbore for receiving the elongate member therethrough;

a clamping member mounted to the housing for being shifted into clamping engagement with the elongate member extending through the housing throughbore;

a pivotal cam lever pivotally mounted to the housing or clamp member and having a release position and different predetermined clamping positions; and

at least two different pivot mounting locations of the pivotal cam lever that are spaced from each other and between which the lever can be selectively shifted by a user thereof to

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provide at least two different release positions and corresponding clamping positions for clamping different sizes of elongate members in the throughbore.

71. (New) The apparatus of claim 70 wherein the clamping member has a slot with opposite ends at which the two different predetermined pivot mounting locations are disposed allowing a user to shift the lever along the slot to select the pivot mounting location depending on the size of the elongate member to be clamped.

72. (New) An apparatus for clamping an elongate member, the apparatus comprising:

a housing having an elongated throughbore for receiving the elongate member therethrough;

a clamping member mounted to the housing for being shifted into clamping engagement with the elongate member extending through the housing throughbore;

a pivotal cam lever pivotally mounted to the housing or clamp member having a release position and different predetermined clamping positions; and

a multifaceted cam surface of the pivoted cam lever that includes discrete facets that are operable to define the different predetermined clamping positions of the pivotal cam lever to generate a clamping force on the clamping member for clamping different sizes of elongate members in the throughbore.

73. (New) The apparatus of claim 72 wherein the pivotal cam lever has a pivot connection to the housing or the clamping member, and the discrete facets are at different effective distances from the pivot connection so that the clamping member is advanced toward the housing throughbore different distances depending on which facet of the multifaceted cam surface is operable to generate the clamping force thereon.

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74. (New) A method of securing a cable to a bone, the method comprising:
connecting the cable to a bone;
inserting the cable into a clamping bore of a clamping tool to extend axially
therethrough along an elongate axis extending through the clamping bore;
coupling a tensioning tool to the clamping tool;
applying a tensioning force to the cable with the tensioning force applied axially along
the axis of the clamping tool bore using the tensioning tool;
applying a clamping force to the cable in the clamping tool bore using the clamping
tool;
engaging the cable with clamping surface portions of the clamping tool that extend
transverse to the clamping tool bore axis as the clamping force is applied to the cable;
bending the cable extending through the clamping tool bore with the clamping surface
portions engaged therewith so that the axial tensioning force applied to the cable draws bent
portions thereof tightly against the transversely extending clamp surface portions; and
removing the tensioning tool from the clamping tool.

75. (New) The method of claim 74 wherein the cable is connected to a bone by
looping the cable about the bone.

76. (New) The method of claim 74 wherein engaging the cable with the transverse
clamping surface portions and bending the cable in the clamping tool bore includes
reconfiguring the axially extending cable in the clamping bore to extend through the clamping
tool bore in an undulating path.